FINAL REPORT
OCTOBER 1996

REPORT NO. 96-73

FUZE, HAND GRENADE (PRACTICE), FUZE MODEL NO. M228, IN WIREBOUND BOX UNITED NATIONS (UN) PERFORMANCE ORIENTED PACKAGING (POP) TESTS

Prepared for:
U.S. Army Armament Research, Development
and Engineering Center
ATTN: AMSTA-AR-ESK
Rock Island, IL 61299-7300

VALIDATION ENGINEERING DIVISION
SAVANNA, ILLINOIS 61074-9639

DEFENSE AMMUNITION CENTER
SAVANNA, ILLINOIS

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19. ABSTRACT (Continue on reverse if necessary and identify by block number)

The U.S. Army Defense Ammunition Center (DAC), Validation Engineering Division (SIOAC-DEV), was tasked by U.S. Army Armament Research, Development and Engineering Center (ARDEC) to conduct United Nations (UN) Performance Oriented Packaging (POP) tests on a fuze, hand grenade (practice), fuze model no. M228, in wirebound box, so this item can be shipped IAW UN POP requirements. This report contains the test results.

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22a. NAME OF RESPONSIBLE INDIVIDUAL JEROME H. KROHN	22b. TELEPHONE (Include Area Code) 815-273-8929 22c. OFFICE SYMBOL SIOAC-DEV

DD Form 1473, Jun 86 — Previous editions are obsolete

DEFENSE AMMUNITION CENTER
VALIDATION ENGINEERING DIVISION
SAVANNA, IL 61074-9639

REPORT NO. 96-73

FUZE, HAND GRENADE (PRACTICE), FUZE MODEL NO. M228, IN WIREBOUND BOX, UNITED NATIONS (UN) PERFORMANCE ORIENTED PACKAGING (POP) TESTS

TABLE OF CONTENTS

PART 1

INTRODUCTION

A. BACKGROUND. The U.S. Army Defense Ammunition Center (DAC), Validation Engineering Division (SIOAC-DEV), was tasked by U.S. Army Armament Research, Development and Engineering Center (ARDEC) to conduct United Nations (UN) Performance Oriented Packaging (POP) tests on a fuze, hand grenade (practice), fuze model no. M228, in wirebound box, for compliance with UN POP requirements.

B. AUTHORITY. This program was conducted IAW mission responsibilities delegated by the U.S. Army Materiel Command (AMC), Logistics Support Activity Packaging, Storage, and Containerization Center (LOGSAPSCC). Effective 9 July 1993, the three letter designator "DEV" was assigned for use when conducting UN POP tests. Effective 9 August 1994 this designation was included in the Joint Regulation AR 700-143, Performance Oriented Packaging of Hazardous Materials.

C. OBJECTIVE. To determine if this item meets UN POP requirements.

D. CONCLUSION. As tested, the fuze, hand grenade (practice), fuze model no. M228, in wirebound box, met all UN POP requirements with no problems encountered during testing.

PART 2

OCTOBER 1996

ATTENDEES

William R. Meyer
General Engineer
DSN 585-8090
815-273-8090

Director
U.S. Army Defense Ammunition Center
ATTN: SIOAC-DEV
3700 Army Depot Road
Savanna, IL 61074-9639

Bradley J. Haas
Mechanical Engineer
DSN 585-8336
815-273-8336

Director
U.S. Army Defense Ammunition Center
ATTN: SIOAC-DEV
3700 Army Depot Road
Savanna, IL 61074-9639

PART 3

TEST PROCEDURES

The test procedures outlined herein were extracted and summarized from the Bureau of Explosives (BOE) Tariff No. BOE-6000-L, Subpart M, Section 178.600. All tests were conducted to Packing Group II requirements.

A. Drop Test. Each package will be dropped onto a nonyielding surface from the height and orientations listed below. The drop height is measured as the vertical distance from the target to the lowest point on the package. The drop height for Packing Group I is 1.8 meters (5.9 feet), for Packing Group II it is 1.2 meters (3.9 feet), and Packing Group III is 0.8 meters (2.6 feet).

Packaging	No. of tests	Drop orientation of samples
Steel drums, Aluminum drums, Metal drums (other than steel or aluminum), Steel jerricans, Plywood drums, Wooden barrels, Fiber drums, Plastic drums and jerricans, Composite packagings which are in the shape of a drum.	Six — (three for each drop)	First drop (using three samples): The package must strike the target diagonally on the chime or, if the packaging has no chime, on the circumferential seam or an edge. Second drop (using the other three samples): The package must strike the target on the weakest part not tested by the first drop, for example a closure or, for some cylindrical drums, the welded longitudinal seam of the drum body.
Boxes of natural wood, Plywood boxes, Reconstituted wood boxes, Fiberboard boxes, Plastic boxes, Steel or aluminum boxes, Composite packagings which are in the shape of a box.	Five — (one for each drop)	First drop: Flat on the bottom (using the first sample). Second drop: Flat on the top (using the second sample). Third drop: Flat on the long side (using the third sample). Fourth drop: Flat on the short side (using the fourth sample). Fifth drop: On a corner (using the fifth sample).
Bags — single-ply with a side seam.	Three — (three drops per bag) .	First drop: Flat on a wide face (using all three samples). Second drop: Flat on a narrow face (using all three samples). Third drop: On an end of the bag (using all three samples).
Bags — single-ply without a side seam, or multi-ply	Three — (three drops per bag) .	First drop: Flat on a wide face (using all three samples). Second drop: On an end of the bag (using all three samples).

B. Stacking Test. The test sample must be subjected to a force applied to the top surface of the test sample equivalent to the total weight of identical packages which might be stacked on it during transport. The minimum height of the stack, including the test sample, must be 3.0 meters (10 feet). The duration of the test must be 24 hours, except that plastic drums, jerricans, and composite packaging 6HH, intended for liquids, shall be subjected to the stacking test for a period of 28 days at a temperature of not less than 40 degrees Celsius (104 degrees Fahrenheit). Alternative test methods which yield equivalent results may be used if approved by the Associate Administrator for Hazardous Materials Safety.

C. Vibration Test. Three sample packagings, selected at random, must be filled and closed as for shipment. The three samples must be placed on a vibrating platform that has a vertical or

rotary double-amplitude (peak-to-peak displacement) of one inch. The packages should be constrained horizontally to prevent them from falling off the platform, but must be left free to move vertically, bounce and rotate. The test must be performed for one hour at a frequency that causes the package to be raised from the vibrating platform to such a degree that a piece of material approximately 1.6 mm (0.063 inch) thickness (such as steel strapping or paperboard) can be passed between the bottom of any package and the platform.

D. Pass/Fail Criteria. A package passes the above tests if there is no rupture or leakage from any of the samples. No test sample should show any deformation which could adversely affect transportation safety or any distortion liable to reduce packaging strength.

PART 4

UN POP TESTS

Fuze, Hand Grenade (Practice), Fuze Model No. M228, in wirebound box,
United Nations (UN) Performance Oriented Packaging (POP) Tests

U.S. Army Defense Ammunition Center
SIOAC-DEV, 3700 Army Depot Road, Savanna, IL 61074-9639
815-273-8908
Jerome H. Krohn

Test Report Number: 96-73

Service Code: DEV

Product NSN: 1330-00-168-5502

Nomenclature: Fuze, Hand Grenade (Practice), Fuze Model No. M228, in wirebound box

Shipping Name: Fuze, Detonating

UN ID Number: 0257

Hazard Class: 1.4B

Packing Group: II

Physical State: Solid

NALC/DODAC: None

CAA Number: None

EX Number: None

CFR 49 Packaging Method: E-137

Net Explosive Weight: .0045 kgs (.0099 lbs)

DESCRIPTION OF PACKAGINGS TO BE TESTED

EXTERIOR CONTAINER

Exterior Container: Natural Wood Wirebound Box

CFR 49 Reference Number: 173.62

UN Code: 4C1

NSN Exterior Container: N/A

Specifications: 4C1

Drawing Number: N/A

Net Quantity Weight: 36 kg (80 lbs)

Tested Gross Weight: 50 kg (110 lbs)

Dimensions Interior: L-26-1/2" X W-18" X H-13-3/4"

Manufacturer: Unknown

Year Container Manufactured: 1995

Drawing Number(s): 9251665-4 REV E

Cushioning: Cardboard liner

Closure: 4 wire fasteners

INTERMEDIATE CONTAINER

Intermediate Container Description: Fiberboard boxes

Specification Number: N/A

Container NSN: N/A

Intermediate Container Cushioning: Styrofoam insert

Intermediate Container Closure Method: Tape

Intermediate Container Dimensions: L-16-1/4" X W-11-5/8" X H-2-7/8"

Number Of Intermediate Containers: 8

UNIT CONTAINER

Unit Container Description: None

Unit Container Specification: N/A

Unit Container NSN: N/A

Unit Container Cushioning: None

Unit Container Closure Method: N/A

Unit Container Dimensions: N/A

Number of Unit Containers: N/A

SPECIAL NOTES

All exterior, intermediate, and unit containers must be inspected prior to use. Inspect for physical damage and structural integrity of the containers.

SUPPLEMENTAL INFORMATION

Permitted Transportation Modes: Military or DOD licensed truck and rail,
Military or DOD licensed ship,
Military or DOD licensed aircraft.

Specific Gravity: N/A

Hydrostatic Test Pressure Applied: N/A

Leakproofness Test Pressure Applied: N/A

TEST PROCEDURES

Tests Conducted	Test Method	Test Results
(1) Pre-Conditioning (fiberboard)	Part 178.602	N/A
(2) Drop Test	Part 178.603(e)(1)(ii)	Pass
(3) Leakproofness Test	Part 178.604	N/A
(4) Hydrostatic Pressure Test	Part 178.605	N/A
(5) Stacking Test (1,500 lbs)	Part 178.606(c)(1)	Pass
(6) Vibration Test	Part 178.608(b)(3)	Pass

UN POP Marking

u 4C1/Y50/S/95

n USA/DOD/DEV

CERTIFICATION

Unless expressly stated to the contrary, we certify that all of the above applicable tests have been performed in strict conformance to CFR 49, Subpart M, Parts 178.600 - 178.608. Based on the successful test results shown above, this container is deemed suitable for transport of the hazardous material described herein, provided that maximum tested weights and quantities are not exceeded and the packaging is assembled as tested. The use of other packaging methods or components may make this test invalid.

PREPARED BY: _____ DATE: 19 MAR 97
WILLIAM R. MEYER
Test Engineer

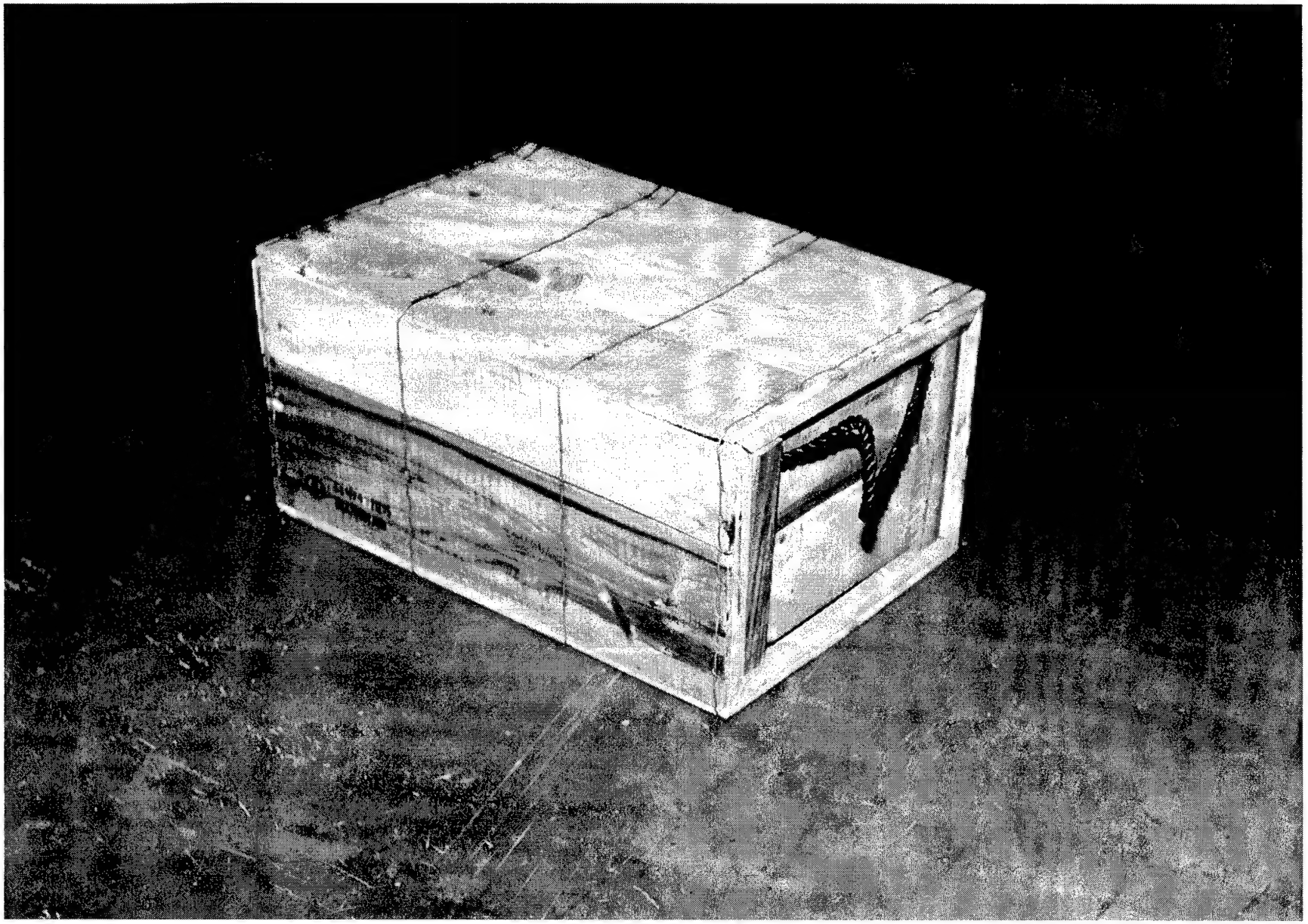
PREPARED BY: Bradley J. Haas DATE: 19 March 97
BRADLEY J. HAAS
Test Engineer

SUBMITTED BY: Jerome H Krohn DATE: 19 March 97
JEROME H. KROHN
Chief, Validation Engineering Division

APPROVED BY: William F Ernst DATE: 19 MARCH 97
WILLIAM F. ERNST
Chief, Logistics Engineering Office

PART 5

PHOTOGRAPH



	U.S. ARMY DEFENSE AMMUNITION CENTER AND SCHOOL - SAVANNA, IL	
DAC-DEV-96-73-01. This photo shows the item tested that passed UN POP requirments.		

PART 6

APPENDIX

KEY 001685502 NIIN 001685502 LAC04PL2102

****

	UI	SL	PMIC	ADPE	PSP	AAC	PC	RELSN/TD/QE	PRC	UPRIC
PICA										
DATA	EA		A	0	4	C			S	1.70

	OA	FSC	SOS	MGMT-CTL	EFF-DT
PICA	BF	1330	B14	DK1XNX	92306
SICA	JG	1330	NCB	KZT BV	92214
	PM	1330	MHQ	0T13X	92214
	SU	1330	FG5	N H N	92001

****

DIDS	FSC	EFF-DT	M-RN	PICA	P-LA	SOS	SICA	S-LA	MATCAT	RELSN/TD/QE	DSOR
DATA	1330	92275	A901	BF	22	B14			D		
	1330	92275	F2BF	BF	22	B14	SU	8D			
	1330	92275	MA5W	BF	22	B14	PM	8D			
	1330	92275	NGFF	BF	22	B14	JG	8D			

NIMSC	DLT-RSN	DMIL	MDR1	MDR2	MDR3	MDR4	MDR5	MDR6	MDR7	MDR8	MDR9	MDR10
J		G	BF	**	BF							
7		G	BF	TU	**	BF	TU					
7		G	BF	PM	JG	PA	**	BF	PM	JG	PA	
7		G	BF	JG	**	BF	JG	KF				

PF1=MENU PF6=NEXT DISPLAY PF7=NEXT KEY HELP

KEY 001685502 NIIN 001685502 LAC03PL2102

DODIC DATA	DODAC	DODIC	NALC	LARC	DT-EFF-LOG-ACTN
	1330G878	G878			92306

****

REFERENCE DATA	REF-NBR-FMT-CD	RNCC	RNVC	DAC	RNAAC	REF-NBR-STAT-CD	JCD
		3	1	1	BF		
		6	9	9	BF		

FSCM	REFERENCE NUMBER	SVC-AGCY-DESI-CD
19200	9235210	
99999	1330-G878	

PF1=MENU PF6=NEXT DISPLAY PF7=NEXT KEY HELP | |

NOTE:
10 pages,
Pass to Bill Myer
Ph 585-8090
mark Rapp

```
502                                    LAC06PI

**************************
ARGO SHC ADC ASHC HMC DT-T

F    4    A    34    DK   923

                                       DT-T

                                       923

**************************
DOT-LBL DOT-MRKG CG-CL  LS

F              DK      III


NTRF-SHPBD          DEXPREG

004500

**************************
                       HELP |
```

```
KEY 001685502
**************************************
PICA      UI  SL  PMIC  ADPE  PSP  AA
DATA      EA      A     0     4    C

          OA    FSC     SOS        MGMT
PICA      BF    1330    B14         DK
SICA      JG    1330    NCB        K2T
          PM    1330    MHQ         0T
          SU    1330    FG5        N

**************************************
DIDS      FSC   EFF-DT   M-RN  PICA  P-L
DATA      1330  92275    A901  BF    22
          1330  92275    F2BF  BF    22
          1330  92275    MA5W  BF    22
          1330  92275    NGFF  BF    22

          NIMSC DLT-RSN DMIL  MDR1  MD
            J             G   BF    *
            7             G   BF    T
            7             G   BF    PM
            7             G   BF    JG
 PF1=MENU     PF6=NEXT DISPLAY      PF
```

```
KEY 001685502

ITEM      INCD          ITMNM
IDENT     20085   FUZE,HAND GRENADE
DATA              MDL-NBR

          SEQ                    ITEM D
          01     ITEM NAME: FUZE,HAND
          02    FUZE TYPE: PRACTICE.
          03    FUZE DELAY TIME: 4.00
          04    ONDS MAXIMUM
```

```
**** RECORD NUMBER *** 081 ***
SECT-ID = 0021                SEG-CD = 0002                RELCD = +2
LNG-DESC =     242.00 INCHES ARMY PALLET#                  LNG-DESC-LINSEQ = 02
SUPPL-LINE-SEQ = A
**** RECORD NUMBER *** 082 ***
SECT-ID = 0021                SEG-CD = 0002                RELCD = +2
LNG-DESC = PKNH1III PACKAGE NOMINAL OVERALL HEIGHT         LNG-DESC-LINSEQ = 02
SUPPL-LINE-SEQ = B
**** RECORD NUMBER *** 083 ***
SECT-ID = 0021                SEG-CD = 0002                RELCD = +2
LNG-DESC =     3@14.00 INCHES SHIPPING CONTAINER#          LNG-DESC-LINSEQ = 02
SUPPL-LINE-SEQ = C
**** RECORD NUMBER *** 084 ***
SECT-ID = 0021                SEG-CD = 0002                RELCD = +2
LNG-DESC =     241.00 INCHES ARMY PALLET#                  LNG-DESC-LINSEQ = 02
SUPPL-LINE-SEQ = D
**** RECORD NUMBER *** 085 ***
SECT-ID = 0021                SEG-CD = 0002                RELCD = +2
LNG-DESC = GRWT1III GROSS WEIGHT@90.0 SHIPPING CON         LNG-DESC-LINSEQ = 02
SUPPL-LINE-SEQ = E
 /
```

```
**** RECORD NUMBER *** 111 ***
SECT-ID = 0021                SEG-CD = 0002          RELCD = +2
LNG-DESC = SR-51THE MANUFACTURERS DATA#               LNG-DESC-LINSEQ = 03
SUPPL-LINE-SEQ = E
**** RECORD NUMBER *** 112 ***
SECT-ID = 0021                SEG-CD = 0002          RELCD = +2
LNG-DESC =     1MANUFACTURERS CODE@19200#             LNG-DESC-LINSEQ = 03
SUPPL-LINE-SEQ = F
**** RECORD NUMBER *** 113 ***
SECT-ID = 0021                SEG-CD = 0002          RELCD = +2
LNG-DESC =     1DESIGN CONTROL REFERENCE@9235210#     LNG-DESC-LINSEQ = 03
SUPPL-LINE-SEQ = G
**** RECORD NUMBER *** 114 ***
SECT-ID = 0021                SEG-CD = 0002          RELCD = +2
LNG-DESC = FZ HND GREN PRAC ASSD W/CLTP M228    360  LNG-DESC-LINSEQ = 49
SUPPL-LINE-SEQ = B
**** RECORD NUMBER *** 115 ***
SECT-ID = 0021                SEG-CD = 0002          RELCD = +2
LNG-DESC = PLT DWG 19-48-4116/71                     LNG-DESC-LINSEQ = 49
SUPPL-LINE-SEQ = K
 /
```

/I,FSN2102,001685502
PAGE 0024 OF 0024 96249#115331-00248 CMD-DSG: M **21 -M117**

```
**** RECORD NUMBER *** 116 ***
SECT-ID = 0021                SEG-CD = 0002                RELCD = +2
LNG-DESC = CTNR 026.38X18.13X14.13 12/P 00004320/P    LNG-DESC-LINSEQ = 49
SUPPL-LINE-SEQ = L
**** RECORD NUMBER *** 117 ***
SECT-ID = 0021                SEG-CD = 0002                RELCD = +2
LNG-DESC = PLT  052.75X42.38X41.75 WT 1166 CU 54.0    LNG-DESC-LINSEQ = 49
SUPPL-LINE-SEQ = M
```

/

```
/I,FSN2102,001685502
PAGE 0011 OF 0024 96249#115331-00248   CMD-DSG: M                    21   -M117
**** RECORD NUMBER *** 051 ***
SECT-ID = 0021                SEG-CD = 0002                RELCD = +1
LNG-DESC = SR-51THE MANUFACTURERS DATA#                    LNG-DESC-LINSEQ = 02
SUPPL-LINE-SEQ = Y
**** RECORD NUMBER *** 052 ***
SECT-ID = 0021                SEG-CD = 0002                RELCD = +1
LNG-DESC =     1MANUFACTURERS CODE@19200#                  LNG-DESC-LINSEQ = 02
SUPPL-LINE-SEQ = Z
**** RECORD NUMBER *** 053 ***
SECT-ID = 0021                SEG-CD = 0002                RELCD = +1
LNG-DESC =     1DESIGN CONTROL REFERENCE@9235210#          LNG-DESC-LINSEQ = 03
SUPPL-LINE-SEQ = A
**** RECORD NUMBER *** 054 ***
SECT-ID = 0021                SEG-CD = 0002                RELCD = +1
LNG-DESC = FZ HND GREN PRAC UNASSD W/CLIP M228  200        LNG-DESC-LINSEQ = 49
SUPPL-LINE-SEQ = B
**** RECORD NUMBER *** 055 ***
SECT-ID = 0021                SEG-CD = 0002                RELCD = +2
LNG-DESC = NAME1ITEM NAME@FUZE,HAND GRENADE#               LNG-DESC-LINSEQ = 01
SUPPL-LINE-SEQ = A
/
```

KEY 001685502 NIIN 001685502 LAC04PL2102

****

PICA DATA	UI	SL	PMIC	ADPE	PSP	AAC	PC	RELSN/TD/QE	PRC	UPRIC
	EA		A	0	4	C			S	1.70

	OA	FSC	SOS	MGMT-CTL	EFF-DT
PICA	BF	1330	B14	DK1XNX	92306
SICA	JG	1330	NCB	K2T BV	92214
	PM	1330	MHQ	0T13X	92214
	SU	1330	FG5	N H N	92001

****

DIDS DATA	FSC	EFF-DT	M-RN	PICA	P-LA	SOS	SICA	S-LA	MATCAT	RELSN/TD/QE	DSOR
	1330	92275	A901	BF	22	B14			D		
	1330	92275	F2BF	BF	22	B14	SU	8D			
	1330	92275	MA5W	BF	22	B14	PM	8D			
	1330	92275	NGFF	BF	22	B14	JG	8D			

NIMSC	DLT-RSN	DMIL	MDR1	MDR2	MDR3	MDR4	MDR5	MDR6	MDR7	MDR8	MDR9	MDR10
J		G	BF	**	BF							
7		G	BF	TU	**	BF	TU					
7		G	BF	PM	JG	PA	**	BF	PM	JG	PA	
7		G	BF	JG	**	BF	JG	KF				

PF1=MENU PF6=NEXT DISPLAY PF7=NEXT KEY HELP | |

KEY 001685502 NIIN 001685502 LAC05PL2102

ITEM IDENT DATA	INCD	ITMNM	RPD TYP	MRC	IMC	IMCA	DTASG	FMR-MOE	HMIC	ESDC
	20085	FUZE,HAND GRENADE	L				70114			
		MDL-NBR								

SEQ	ITEM DESCRIPTION
01	ITEM NAME: FUZE,HAND GRENADE.
02	FUZE TYPE: PRACTICE.
03	FUZE DELAY TIME: 4.00 SECONDS MINIMUM AND.5.00 SEC
04	ONDS MAXIMUM.

```
04    ONDS MAXIMUM.
05    FUZE MODEL NUMBER: M228.
06    DOD AMMUNITION CODE: 1330-G878.
07    UNIT PACKAGE QUANTITY: 45 AND.8 AND.1.
08    UNIT PACKAGE TYPE: CARTON, FIBERBOARD AND.BAG, BAR
09    RIER, MOISTURE-VAPORPROOF AND.BOX, WOOD.
10    SPECIAL FEATURES: ASSEMBLED W/SAFETY CLIP.
11    REFERENCE NUMBER DIFFERENTIATING CHARACTERISTICS:
12    AS DIFFERENTIATED BY UNIT PACKAGE QUANTITY, SPECIA
13    L FEATURES.
99    END OF DATA
```

KEY 001685502 NIIN 001685502 LAC07PL2102

****

PALLET DATA	SVC	QTY-PER-PLLT	PLLT-WT (LB)	PLLT-LGTH (IN)	PLLT-WDTH (IN)	PLLT-HGT (IN)
		4320	666.0	52.25	42.00	41.00

SVC	SC-PER-PLLT	PLLT-CUBE (FT)	PRO-WT (LB)	PRO-CUBE (FT)
	12	52.068	0.000	0.000

****

PF1=MENU PF6=NEXT DISPLAY PF7=NEXT KEY HELP | |

KEY 001685502 NIIN 001685502 LAC08PL2102

****

PACKAGING DATA SVC PKG-REF-1 PKG-REF-2 PKG-REF-3

****

SHTP CONTAINER DATA	QTY-PER-CNTR	SC-WT (LB)	SC-LGTH (IN)	SC-WID (IN)	SC-HGT (IN)
	360	90.0	26.18	17.75	14.00

SC-DIAM (IN)	SC-CUBE (FT)	SC-PRO-WT (LB)	SC-PRO-CUBE (FT)
0.00	3.8	0.250	0.011

PF1=MENU PF6=NEXT DISPLAY PF7=NEXT KEY HELP

KEY 001685502 NIIN 001685502 LAC05PL2102

ITEM IDENT DATA	INCD	ITMNM	TYP	RPD MRC	IMC	IMCA	DTASG	FMR-MOE	HMIC	ESDC
	20085	FUZE,HAND GRENADE	L				70114			
		MDL-NBR								

SEQ	ITEM DESCRIPTION
01	ITEM NAME: FUZE,HAND GRENADE.
02	FUZE TYPE: PRACTICE.
03	FUZE DELAY TIME: 4.00 SECONDS MINIMUM AND.5.00 SEC
04	ONDS MAXIMUM.
05	FUZE MODEL NUMBER: M228.
06	DOD AMMUNITION CODE: 1330-G878.
07	UNIT PACKAGE QUANTITY: 45 AND.8 AND.1.
08	UNIT PACKAGE TYPE: CARTON, FIBERBOARD AND.BAG, BAR
09	RIER, MOISTURE-VAPORPROOF AND.BOX, WOOD.
10	SPECIAL FEATURES: ASSEMBLED W/SAFETY CLIP.
11	REFERENCE NUMBER DIFFERENTIATING CHARACTERISTICS:
12	AS DIFFERENTIATED BY UNIT PACKAGE QUANTITY, SPECIA
13	L FEATURES.
99	END OF DATA

KEY 001685502 NIIN 001685502 LAC06PL2102

****

FREIGHT DATA | INTG | NMFC | SUB | UFC-CD | LTL | LCL | RVI | WAT | CARGO | SHC | ADC | ASHC | HMC | DT-TRAN1

064300	B	05990	M	J	1	411	F	4	A	34	DK	92306	

NMFC-DESC | DT-TRAN2

EXPLOSIVES NOI/AMMO/FIREWORKS SUB2	92306

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HAZARD DATA | IBD | CL-DIV | GP-CD | CHEM | FF-GP | UNO | DOT-CL | DOT-LBL | DOT-MRKG | CG-CL | LS

1.4	B		I	0257	F	F			DK	III	

DOT-EXEMP | NEW-TRANS | NEW-STRG | NEW-WTRF-SHPBD | DEXPREG

	0.004500	0.004500	0.004500

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PF1=MENU PF6=NEXT DISPLAY PF7=NEXT KEY HELP | |